

Supplementary materials

Stereoselective voltammetric biosensor for myo-inositol and D-chiro-inositol recognition

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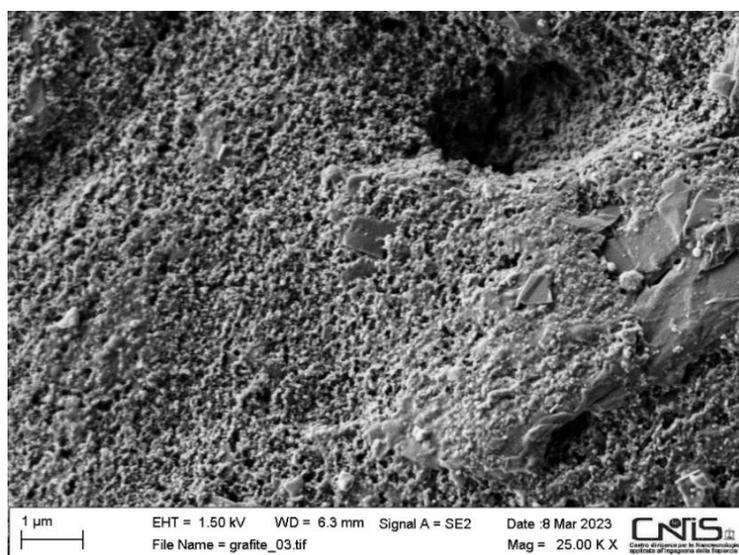


Figure S1. SEM image of bare GSPE. Experimental conditions: magnification 25 K X; voltage 1.50 kV.

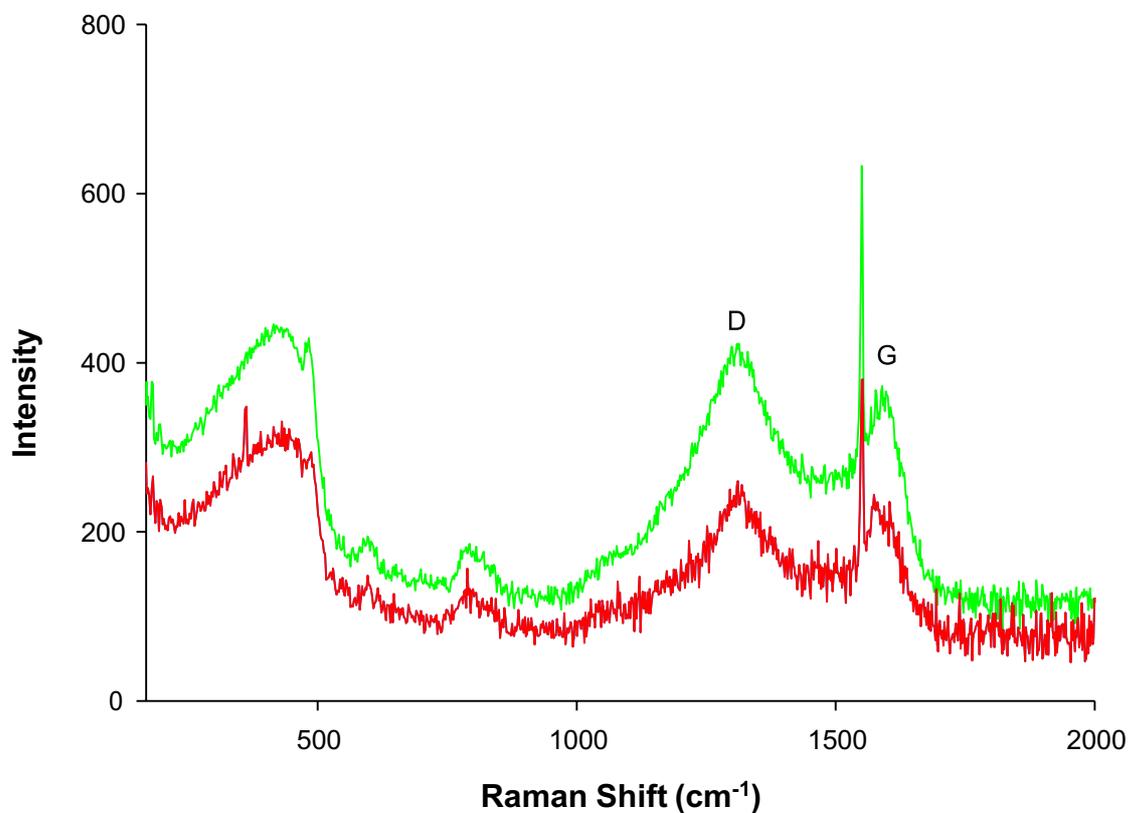


Figure S2. Raman spectra of bare GSPE (green) and MWCNTs/GSPE (red).

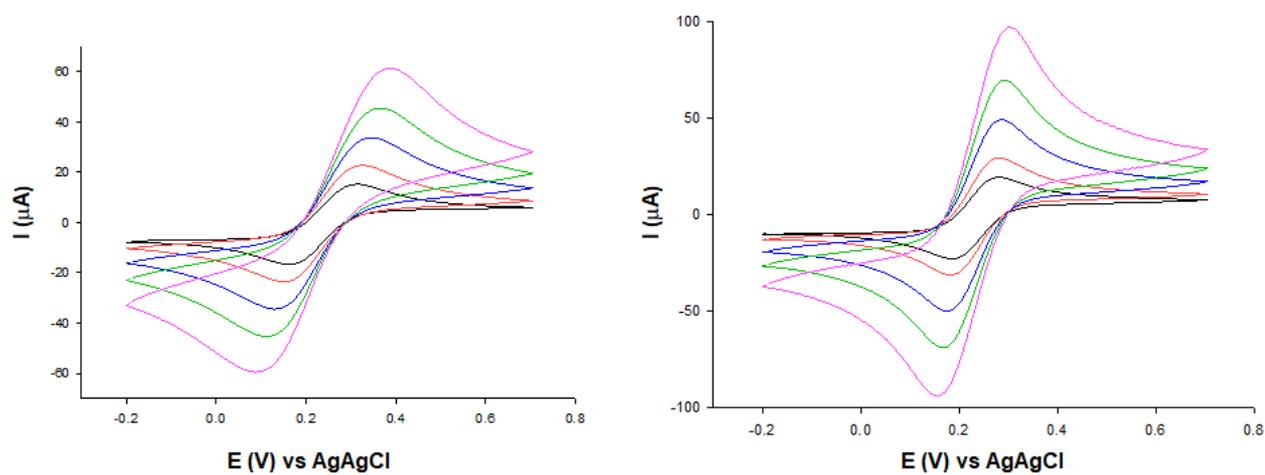


Figure S3. Scan rate effect of: (left) SPGE and (right) MWCNTs/SPGE at 5 mV s⁻¹ (black line), 10 mV s⁻¹ (red line), 25 mV s⁻¹ (blue line), 50 mV s⁻¹ (green line) and 100 mV s⁻¹ (pink line). Redox probe: 5mM [Fe(CN)₆]^{3-/4-} containing 0.1 M KCl solution.

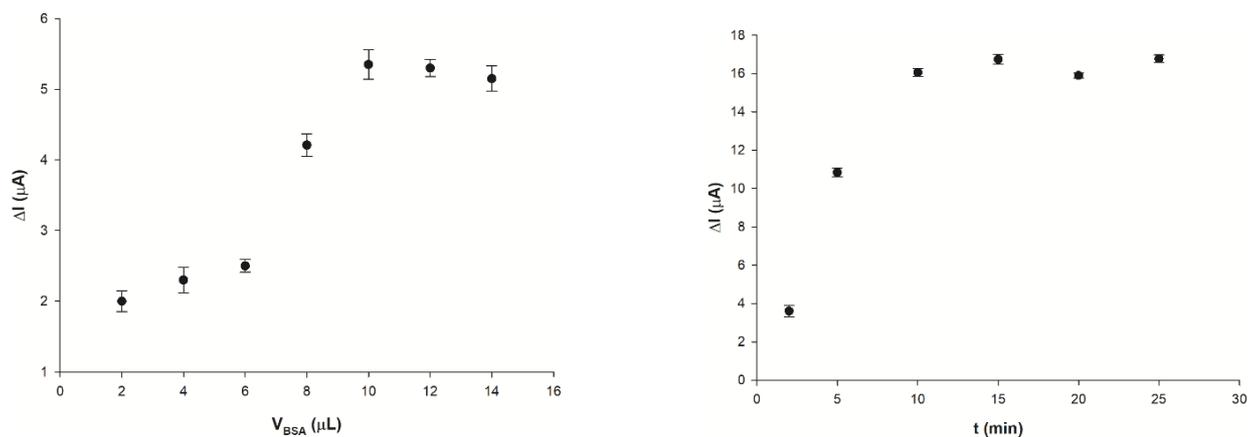


Figure S4. Relationship between (left) the volume of BSA and (right) the incubation time of BSA vs. the peak response in PBS 50 mM, pH 7.0 containing 50 μM of myo-inositol.

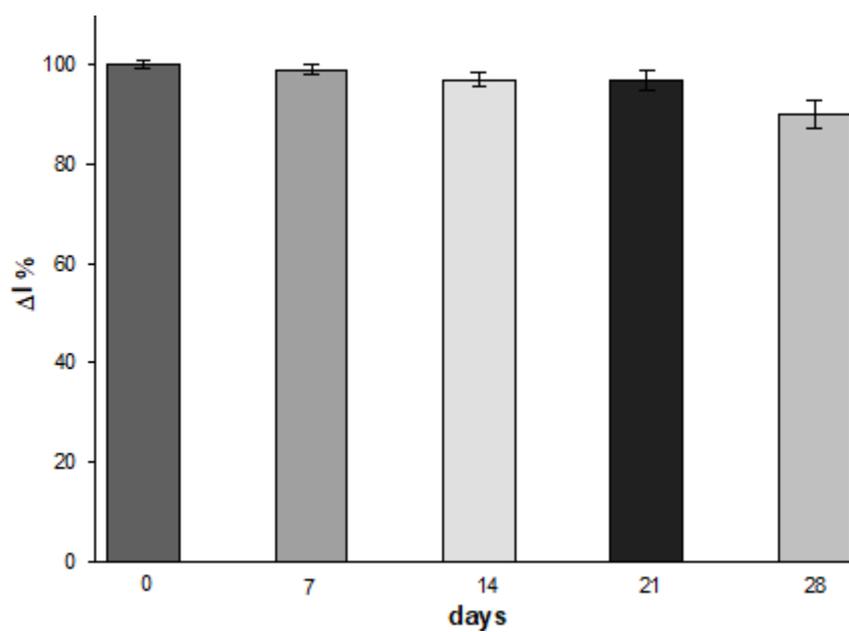


Figure S5. Stability of BSA/MB/MWCNTs/GSPE at 4 °C ($n=6$), in presence of 50 μM myo-Ins.

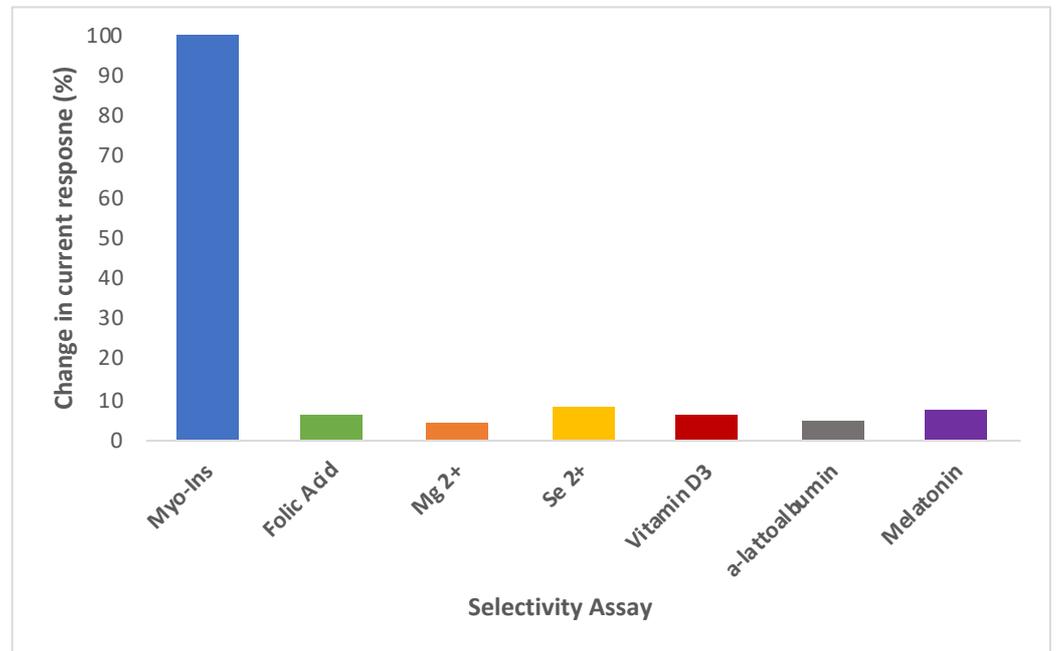


Figure S6. Histograms of selectivity assay for Myo-Ins vs. different interferent compounds. Experimental conditions: DPV experiments in Zobel's solution; myo-Ins: 50 μM ; all other compounds: 0.5 mM.

Table S1. Information about the manufacturer and ingredients of commercial pharmaceutical preparations containing Myo-Ins and D-chiro-Ins.

Pharmaceutical preparation	Commercial name and Manufacturer	Ingredients (for 1 capsule)
Preparation 1	Kirocomplex, S& R Pharmaceuticals	D-Chiro-Ins 500 mg Myo-Ins 200 mg Mg ²⁺ 5 mg Folic Acid 200 µg Vitamin D ₃ 12.5 µg
Preparation 2	Tiroxil 4.0, Lo.Li Pharma S.r.l.	Myo-Ins 600 mg Se ²⁺ 83 µg
Preparation 3	Inofert Combi Hp, Italfarmaco S.p.A.	Myo-Ins 550 mg D-chiro-Ins 15 mg Folic Acid 200 µg
Preparation 4	Eufertix, Pharmaspeed	α-Lattoalbumin 14.1 mg Myo-Ins 2000 mg D-chiro-Ins 50 mg Folic Acid 400 µg Melatonin 1 mg

